

Increasing of HPV infection in the Oral Cavity significantly rising the risk of OSCC: A Meta-Analysis Research

Result:

- Retrieved 1120 articles, after eliminating duplication, screening and inclusion and exclusion criteria only 5 articles remained.
- Quality assessment scale for each article medium to high category.
- The data was homogeneous with p value less than 0,05 ($p < 0.00001$).

For case OSCC with HPV (+) is 4.63. It means that HPV infection can increase the risk of OSCC by 4.63 times.

Publication of case-control research is very limited. Currently, we do ongoing study that involves more data by expanding the year of publication, not only open access full paper and database sources. This is only a preliminary report.

Objective:

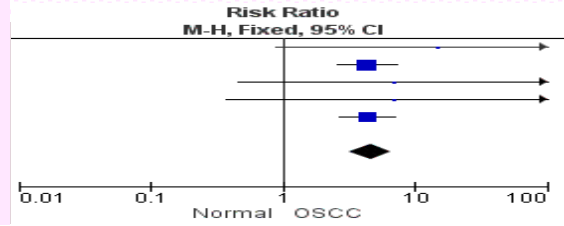
The increasing of OSCC without tobacco & alcohol exposure tempting us there are other risk factors.

HPV infection has been established as an etiologic factor of cervical and anogenital malignancies

Along with the increasing of deviant sexual behavior – as also found in developing countries –

- the virus can be transmitted through direct contact from the genital area to the oral cavity.
- Does HPV also promote squamous cells carcinogenesis in the oral cavity?
- The objective of this study, therefore, is to evaluate the association between them, to seek whether this virus also promote carcinogenesis in the oral cavity.

Nattalia Pranata^{1,2}, Leonardo Jaya Setiadi³, Herjanto Kurnia⁴, Sunardhi Widyaputra⁵
¹Doctoral Program, Faculty of Medicine, Universitas Padjadjaran, Bandung, West Java, Indonesia.
²Department of Oral Biology, Faculty of Dentistry, Maranatha Christian University, Bandung, West Java, Indonesia.
³Faculty of Dentistry, Maranatha Christian University, Bandung, West Java, Indonesia
⁴Department of Biomedical Science, Faculty of Dentistry, Maranatha Christian University, Bandung, West Java, Indonesia
⁵Department of Oral Biology, Faculty of Dentistry, Universitas Padjadjaran, Jatinangor, West Java, Indonesia.



Methods:

Conducted according PRISMA, search strategy used Harzing Publish or Perish software to find studies at Scopus, Pubmed and Google Scholar database.

Publication from 2016 - 2021, case-control research,

- Full paper open access, used Bahasa Indonesia & English.
- Quality of study was assessed using NOS
- The data was then analyzed using RevMan 5.4.1.

Study or Subgroup	OSCC		Normal		Weight	Risk Ratio M-H, Fixed, 95% CI
	Events	Total	Events	Total		
Ashraf et al 2017	7	50	0	50	1.7%	15.00 [0.88, 255.78]
Phusingha et al 2016	82	146	13	100	52.5%	4.32 [2.55, 7.32]
Purwaningsih et al 2017	16	46	0	9	2.8%	7.02 [0.46, 107.60]
Rahbarnia et al 2019	3	30	0	30	1.7%	7.00 [0.38, 129.93]
Tsea et al 2018	38	90	20	206	41.3%	4.35 [2.69, 7.04]
Total (95% CI)		362		395	100.0%	4.63 [3.24, 6.63]
Total events	146		33			
Heterogeneity: Chi ² = 0.96, df = 4 (P = 0.92); I ² = 0%						
Test for overall effect: Z = 8.39 (P < 0.00001)						

Conclusion:

The HPV infection was significantly associated with OSCC.

References

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